

ME-16-2 Grand Lake Shoreline Protection, from Superior Canal to Tebo Point

Coast 2050 Strategy - Regional #16 - Stabilize Grand and White Lakes shorelines.

Project Location - Region 4, Mermentau Basin, Cameron Parish, south shore of Grand Lake.

Problem – A comparison of the 1978-79 aerial photography to the 1997-98 aerial photography indicates that shoreline erosion rates in this area vary from 11 to 32 feet per year.

Goals – 1) Stop shoreline erosion from Superior Canal to Tebo Point. 2) Promote accretion between the breakwater and the shore.

Proposed Solution - Approximately 39,000 feet of stone breakwater will be built in Grand Lake at the outer edge of the -2 foot contour from Superior Canal to Tebo Point. The crest elevation will be +2.0 feet NGVD; crest width 4 feet; front and back slopes 1:3; and stone size 650# maximum. Approximately 163,000 tons of riprap will be used. The stone will be placed on geotextile fabric that is 200 lb/inch. Gaps for fish access will be built every 1,000 feet. They will have a top width of 46 feet and extend to the lake bottom. They will be lined with a concrete apron. A flotation channel will be at least 35 feet from the centerline of the dike with a side slope of 1:4 and a depth of -6 feet. Material from the flotation canal will be cast inside the breakwater.

Project Benefits – The project would benefit 445 acres of fresh marsh and 717 acres of open water (total 1,162 acres). Shoreline loss would be prevented and some marsh would accrete south of the breakwater so at the end of 20 years, 495 acres of marsh would be protected/created.

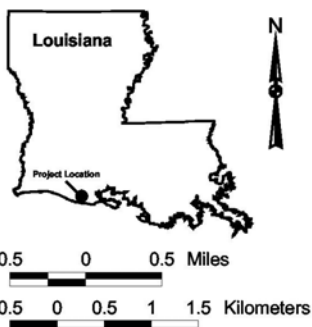
Preliminary Costs – The total fully funded cost is \$13,562,500. The fully funded first cost is \$9,559,700.



Risk/Uncertainty and Longevity/Sustainability – There will be a low degree of risk associated with this project because monitoring has indicated that breakwaters significantly reduce erosion. The project should continue providing benefits more than 20 years after construction because some rocks will be replaced at years 5 and 15.

Sponsoring Agency and contact Persons – Corps of Engineers

Sue Hawes, COE, 504 862-2518 suzanne.r.hawes@mvn02.usace.army.mil

Christopher Alfonso, 504 862-2401 christopher.d.alfonso@mvn02.usace.army.mil



 Project area
 Proposed Breakwater

Data Source:
 U.S. Geological Survey
 National Wetlands Research Center
 Coastal Restoration Field Station

LA Department of Natural Resources
 Coastal Restoration Division

Map Date: November 16, 2001
 Map ID: 200204142

Image Data:
 1990 SPOT Panchromatic Imagery

CWPPRA PPL11
 Region 4

Grand Lake Shoreline Protection
 Superior Canal to Tebo Point
 (ME-16-2)